

REMARKS

This Amendment is responsive to the Office Action dated December 13, 2004.

Claims 1-26 were pending in the application. In the Office Action, claims 1-12 and 20-25 were rejected. Claims 2, 8, 13-19, 22 and 26 have been canceled. In this Amendment, claims 1, 3-5, 7, 9-11, 20, 24 and 25 have been amended and claims 27-29 have been added. Claims 1, 3-7, 9-12, 20, 21, 23-25 and 27-29 thus remain for consideration.

Applicants submit that claims 1, 3-7, 9-12, 20, 21, 23-25 and 27-29 are in condition for allowance and request reconsideration and withdrawal of the rejections in light of the following remarks.

Specification

Applicants have made amendments to the specification, and believe that the specification is now in compliance with all formality requirements. No new matter has been added.

Drawings

The objection to the drawings is noted.

Applicants have amended the claims and submit that the changes to the claims render the objection to the drawings moot. Applicants therefore respectfully request that the objection to the drawings be withdrawn.

§112 Rejections

Claims 2, 5, 8, 11, 22 and 25 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Applicants have amended claims 5, 11, and 25 and have canceled claims 2, 8 and 22.

Accordingly, Applicants request that the rejection under §112, second paragraph be withdrawn.

§102(e) Rejections

Claims 1-6 were rejected under 35 U.S.C. §102(e) as being anticipated by Sato et al. (U.S. Patent No. 6,630,714).

Claims 1-12 and 20-25 were rejected under 35 U.S.C. §102 as being anticipated by Hsu et al. (U.S. Patent No. 6,670,234).

Applicants submit that the independent claims (claims 1, 7 and 20) are patentable over Sato and Hsu.

Applicants' invention as recited in independent claim 1 includes "a cavity being wider than an element region." Claims 7 and 20 contain the same or similar limitations.

Support for the amendments to the claims and the specification are based on, for example, Figs. 2A, 2B and 3G. Support for new claims 27-29 are based on the description at page 9, line 18 to page 10, line 13 of the specification.

Claim 1 specifically states that a cavity is wider than an element region. In contrast, Fig. 17 of Sato discloses a cavity 71, which has the same width as an element region 72. Thus, Sato does not anticipate claim 1.

Claims 1, 7 and 20 specifically state that a cavity is wider than an element region. The Examiner indicated that element #200 in Fig. 17 of Hsu corresponds to a cavity. However, applicants disagree because the term "cavity" usually refers to a component that has no fillings therein, and the cavity in claim 1 has no fillings. From this point of view, element #200 in Hsu is

not the same as the cavity in claim 1 since element #200 is filled with an n-type dopant. Therefore, Hsu does not disclose a cavity that has no fillings. Thus, Hsu does not anticipate claims 1, 7 and 20.

It is therefore clear that Sato and Hsu - taken either alone or in combination - do not disclose or even suggest a semiconductor having a cavity being wider than an element region, as recited in claims 1, 7 and 20 of the present invention. Thus, Sato and Hsu do not anticipate claims 1, 7 and 20 and their dependent claims 3-6, 9-12, 21, 23-25 and 27-29.

It is submitted that these claims, as originally presented, are patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes to these claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

Statements appearing above with respect to the disclosures in the cited references represent the present opinions of the Applicants undersigned attorney and, in the event that the Examiner disagrees with any such opinions, it is respectfully requested that the Examiner specifically indicate those portions of the respective reference providing the basis for a contrary view.

Applicants respectfully submit that all of the claims now pending in the application are in condition for allowance, which action is earnestly solicited.

If any issues remain, or if the Examiner has any further suggestions, he is invited to call the undersigned at the telephone number provided below.

PATENT
790001-2037

The Examiner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account No. 50-0320.

The Examiner's consideration of this matter is gratefully acknowledged.

Respectfully submitted,

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